

PATENT COOPERATION TREATY  
PCT  
INTERNATIONAL SEARCH REPORT  
(PCT Article 18 and Rules 43 and 44)

REC'D 14 SEP 2004  
WIPO PCT

Applicant's or agent's file reference 504344 NJC	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/NZ2004/000166	International filing date (day/month/year) 27 July 2004	(Earliest) Priority Date (day/month/year) 1 August 2003
Applicant FISHER & PAYKEL HEALTHCARE LIMITED et al		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 7 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b.  With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

Certain claims were found unsearchable (See Box No. II).

3.  Unity of invention is lacking (See Box No. III).

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

**DEVICE FOR SUPPLYING A RESPIRATORY GAS WITH INTEGRATED HUMIDIFIER**

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. 1, 4

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

- b.  none of the figures is to be published with the abstract.

**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

See extra sheet.

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

- The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

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**Supplemental Box**

(To be used when the space in any of Boxes I to VIII is not sufficient)

**Continuation of Box No: III**

The international application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept. In coming to this conclusion the International Searching Authority has found that there are different inventions as follows:

1. Claims 1 to 5 and 13 are directed to an apparatus for use in humidified gases delivery treatment comprising a housing, a humidifier, and a chamber heating means connected to said housing, said housing includes a pressurised gases supply, a humidifier engagement, a pressurised gases outlet, a humidified gases return, and a patient outlet, said humidifier includes a humidification chamber having a base, a humidifier inlet, a humidifier outlet and said chamber is engagable with said humidifier engagement via a single motion, and said single motion of engagement urges the base of said humidification chamber adjacent and in contact with said chamber heating means and makes a first fluid connection between said pressurised gases outlet and said humidifier inlet, and makes a second fluid connection between said humidified gases return and said humidifier outlet, with said first and second fluid connections being made in the direction of said single motion. It is considered that the first and second fluid connections being made in the direction of said single motion comprises a first "special technical feature".
2. Claims 6 to 12 and 14 are directed to a humidifier chamber comprising a container, with a surrounding wall and top and an open bottom, a heat conductive base enclosing said open bottom of said container, a gases inlet, gases outlet, and a filter means on or over said inlet. It is considered that the open bottom and heat conductive base enclosing said open bottom of said container comprises a second special technical feature.

These groups are not so linked as to form a single general inventive concept, that is, they do not have any common inventive features, which define a contribution over the prior art. The common feature linking together these groups of claims is related to a filter means on or over said inlet of said humidifier to filter said gases entering said humidifier. However this feature is not novel in the light of AU 200065475 A1 (RESMED LIMITED) 26 April 2001.

Consequently the common feature does not constitute "a special technical feature" within the meaning of PCT Rule 13.2, second sentence, since it makes no contribution over the prior art. Since there exists no other common feature which can be considered as a special technical feature within the meaning of PCT Rule 13.2, second sentence, no technical relationship within the meaning of PCT Rule 13 between the different inventions can be seen. Therefore these claims lack unity a posteriori.

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## Box No. IV Text of the Abstract (Continuation of item 5 of the first sheet)

An apparatus (1) for use in humidified gases delivery treatment comprising a housing, a humidifier, and a chamber heating means connected to said housing, said housing includes a pressurised gases supply, a humidifier engagement (17), a pressurised gases outlet (4), a humidified gases return (7), and a patient outlet (9), said humidifier includes a humidification chamber (2) having a base, a humidifier inlet (5), a humidifier outlet (6) and said chamber is engagable with said humidifier engagement (17) via a single motion, and said single motion of engagement urges the base of said humidification chamber adjacent and in contact with said chamber heating means and makes a first fluid connection between said pressurised gases outlet (4) and said humidifier inlet (5), and makes a second fluid connection between said humidified gases return (7) and said humidifier outlet (6), with said first and second fluid connections being made in the direction of said single motion.

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**A. CLASSIFICATION OF SUBJECT MATTER**

Int. Cl A61M 16/16

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
DWPI IPC A61M and keywords (CPAP, humidifier, filter, bottom, plate, integrate) and similar terms

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	AU 200065475 A1 (RESMED LIMITED) 26 April 2001 Page 5, lines 15-33 Fig. 1	1
Y	WO 1998/57691 A1 (RESMED LIMITED) 23 December 1998 Page 4, lines 13-26 Figs. 1, 3	2, 3, 5
Y	WO 2001/10489 A2 (MAP MEDIZINTECHNIK FUR ARZT UND PATIENT GMBH & CO KG) 15 February 2001 Page 17, line 20 to page 20, line 12 Figs. 1, 2	3, 5
P, Y	WO 2004/026382 A1 (FISHER & PAYKEL HEALTHCARE LIMITED) 1 April 2004 Whole document	1-14

Further documents are listed in the continuation of Box C

See patent family annex

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search  
30 August 2004

Date of mailing of the international search report 07 SEP 2004

Name and mailing address of the ISA/AU

Authorized officer

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, Y	EP 1369141 A1 (FISHER & PAYKEL HEALTHCARE LIMITED) 10 December 2003 Column 13, lines 8-21 Figs. 27, 28	5
A	US 5943473 A (LEVINE) 24 August 1999 Abstract	
A	EP 0533644 B1 (LOUIS GIBECK AB) 4 December 1996 Whole document	
A	US 5460172 A (ECKERBOM et al) 24 October 1995 Abstract	

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

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This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report				Patent Family Member			
AU	65475/00	US	6554260	US	2003132535		
WO	9857691	AU	71978/98	AU	78989/98	CA	2294260
		EP	0989875	US	6397841		
WO	0010489	AU	55794/99	CA	2338833	EP	1107709
		US	6117117	US	6210380	US	6258073
		US	6494875	US	2001012927	US	2003093109
WO	2004026382						
EP	1369141	CA	2431283	US	2003236015		
US	5943473						
EP	0533644	JP	5192405	SE	9102731	US	5482031

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX